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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,201	11/19/2001	Tristan Barbeyron	01203DIV2	8203

7590

11/24/2003

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EXAMINER

PATTERSON, CHARLES L JR

ART UNIT

PAPER NUMBER

1652

DATE MAILED: 11/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/988,201	BARBEYRON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Charles L. Patterson, Jr.	1652	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 October 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-20 is/are pending in the application.
- 4a) Of the above claim(s) 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☒ Certified copies of the priority documents have been received in Application No. 09/269,731.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

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Applicant's election with traverse of Group I, claims 12-18 limited to a nucleic acid of SEQ ID NO:5 or encoding SEQ ID NO:6 in the paper filed 10/03/03 is acknowledged. The traversal is on the ground(s) that although it is admitted "that nucleotide sequences encoding different proteins are structurally different...within the meaning of 35 USC 121, MPEP § 803.04 partially waives the requirements to permit "up to ten nucleotide sequences" to be examined in a single application and because it has not been shown that it would be a serious burden upon the examiner to examine both groups. This is not found persuasive because while MPEP § 803.04 states that "in most cases, up to ten independent and distinct nucleotide sequences" will be examined, the two nucleotides encode different structural proteins and are themselves structurally different, and because one is included in "up to ten", only the nucleic acid of SEQ ID NO:5 or encoding SEQ ID NO:6 will be examined. It would be a serious burden upon the examiner to examine both Group I and II because it would involve examining two completely different nucleic acids encoding two completely different proteins and, besides having to search two additional sequences, would involve different 35 USC 101 and 112 issues. However, claim 19 will be examined with claims 12-18 limited as discussed *supra*.

The requirement is still deemed proper and is therefore made FINAL.

Claim 20 and claims 12-18 not limited to SEQ ID NO:5 or 6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the paper filed 10/03/03.

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Claims 12 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 is confusing in that it recites SEQ ID NOs that were not elected for prosecution.

Claim 19 is incorrect in the recitation of "kappa-oligocarageenans" on line 1, which should apparently be "kappa-oligocarrageenans". The claim is also incorrect in the recitation of "kapp-oligocarrageenans" on line 8, which should apparently be "kappa-oligocarrageenans".

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification teaches that oligocarrageenans can be produced by cleaving with a glycosyl hydrolase (page 2, lines 13-19). They also teach that some enzymes are capable of hydrolyzing iota-carrageenans and some enzymes are capable of hydrolyzing kappa-carrageenans (page 2, lines 19-22). Nowhere in the specification has the examiner found the definition of "kappa-oligocarageenans", as in the instant claim. It is presumed for this action that "kappa-oligocarageenans" should be "kappa-oligocarrageenans" (see 35 USC

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112 second paragraph rejection *supra*) and are the result of the cleavage of carrageenan. This assumption was used in the art rejection *infra*. However, applicants must point out where the term "kappa-oligocarrageenans" is defined in the specification of some publication referenced in the specification to overcome this rejection.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Potin, et al. (U). The instant reference teaches the nucleic acid of SEQ ID NO:5 in Figure 1. It is presumed, absent convincing proof to the contrary, that the nucleic acid meets the requirements of claims 13-15 inherently.

Claims 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potin, et al. (U). The reference has been characterized *supra*. It would have been obvious and well within the skill level of one of ordinary skill in the art to place the nucleic acid into a vector and that vector into

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a host cell in order to produce large amounts of the protein. The method of claim 19 involves using the host cell and, as discussed *supra*, it is presumed that a kappa-oligocarrageenan is what is produced when a carrageen is cleaved by a kappa-carrageenanase.

Potin, et al. (V and W) are cited as of interest in that they teach the kappa-carrageenases of *Alteromonas corrageenovora* and *Delesseria sanguina* (*Cytophaga*).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles L. Patterson, Jr., PhD, whose telephone number is 703-308-1834. The examiner can normally be reached on Monday - Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy can be reached on 703-308-3804. The fax phone number is 703-308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

  
Charles L. Patterson, Jr.  
Primary Examiner  
Art Unit 1652

Patterson  
November 19, 2003